

30 MAR 2005

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property

Organization
International Bureau



(43) International Publication Date
15 April 2004 (15.04.2004)

PCT

(10) International Publication Number
WO 2004/032522 A1

- (51) International Patent Classification: **H04N 9/31**
- (21) International Application Number:
PCT/IB2003/004118
- (22) International Filing Date:
17 September 2003 (17.09.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
02079129.9 4 October 2002 (04.10.2002) EP
- (71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL];
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **DE VAAN, Adrianus, J., S., M.** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).
- (74) Agent: **VAN DEN HOOVEN, Jan**; Philips Intellectual Property & Standards, Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

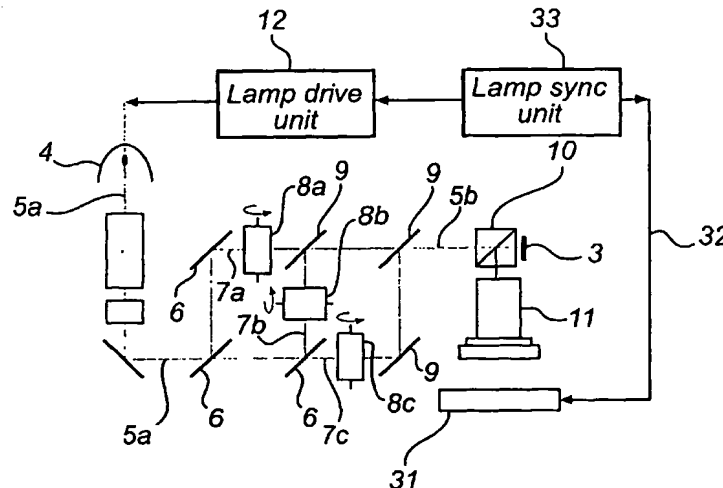
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,

[Continued on next page]

(54) Title: COMPENSATION OF LIGHT SOURCE INTENSITY PULSE IN SCROLLING COLOUR TYPE PROJECTION SYSTEM



(57) Abstract: A scrolling colour projection system comprising a lamp (4) with a pulsed drive current (20) and a colour scanner (6, 8a, 8b, 8c, 9) for generating a light beam (5b) with a plurality of scrolling colour fields, which is arranged to illuminate a display device (3) to produce a projection of an image generated by the display device. The system further includes a filtering element (31) arranged in the light path between the lamp and the projected image, and the transmission of the filtering element (31) is synchronized with the lamp current so as to cancel an intensity peak in the lamp flux. The filtering element thus effectively removes the impact of the current pulse on the light intensity, resulting in a constant intensity in the projected image, and avoiding any interference patterns.

BEST AVAILABLE COPY

WO 2004/032522 A1

WO 2004/032522 A1



MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

Internat. Application No.
PCT/IB 03/04118

CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04N9/31

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,A	WO 03 067897 A (VAN DEN WILDENBERG HENRICUS W ; LUERKENS PETER (NL); DE VAAN ADRIAN) 14 August 2003 (2003-08-14) the whole document	1-5
A	US 6 400 511 B2 (SMITS WILLEM HENDRIK ET AL) 4 June 2002 (2002-06-04) the whole document	1-4,6,7
A	US 4 443 696 A (TABOADA JOHN) 17 April 1984 (1984-04-17) abstract; figure 1	
A	US 5 532 763 A (OTTO DETLEV ET AL) 2 July 1996 (1996-07-02) the whole document	

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- 'A' document defining the general state of the art which is not considered to be of particular relevance
- 'E' earlier document but published on or after the international filing date
- 'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- 'O' document referring to an oral disclosure, use, exhibition or other means
- 'P' document published prior to the international filing date but later than the priority date claimed

- 'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- 'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- 'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- '&' document member of the same patent family

Date of the actual completion of the international search

17 December 2003

Date of mailing of the international search report

14/01/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Aratari, R

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

Information on patent family members

Internat

Application No.

PCT/US 03/04118

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 03067897	A	14-08-2003	WO 03067897 A1	14-08-2003
US 6400511	B2	20-09-2001	WO 0149041 A1	05-07-2001
			EP 1157563 A1	28-11-2001
			JP 2003518643 T	10-06-2003
			TW 519832 B	01-02-2003
			US 2001022692 A1	20-09-2001
US 4443696	A	17-04-1984	NONE	
US 5532763	A	02-07-1996	US 5608467 A	04-03-1997
			US 5410370 A	25-04-1995
			US 5548347 A	20-08-1996
			US 5528318 A	18-06-1996
			US 5508738 A	16-04-1996
			US 5416514 A	16-05-1995
			CN 1062819 A ,B	15-07-1992
			DE 69125125 D1	17-04-1997
			DE 69125125 T2	21-08-1997
			EP 0492721 A2	01-07-1992
			JP 3352100 B2	03-12-2002
			JP 4316296 A	06-11-1992
			KR 223724 B1	15-10-1999